

COPY OF PAPERS ORIGINALLY FILED

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

### **Declaration and Power of Attorney for Patent Application**

As a named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name;

I believe I am the original, first and sole inventor (if only one name is listed in the signatory page(s) commencing at page 3 hereof) or an original, first and joint inventor (if plural names are listed in said signatory page(s)) of the subject matter which is claimed and for which a patent is sought on the invention entitled

# DIGITAL DATA STORAGE SUBSYSTEM INCLUDING ARRANGEMENT FOR INCREASING CACHE MEMORY ADDRESSABILITY

| he spec             | cification of which (  | check one)   |  |                       |                   |         |                 | 7              |            |             | I A F  |    |
|---------------------|--|--|--|-----------------------|-------------------|---------|-----------------|----------------|------------|-------------|--------|----|
| ]                   | I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) and tor inventor's certificate or 365(a) of any PCT international application which designated at least one other than the United States of America, listed below and have also identified below, by checking the box, sign application for patent or inventor's certificate, or of any PCT international application having a filing fore that of the application on which priority is claimed:    Prior Foreign Application(s) |  |  |                       |                   |         |                 |                |            |             |        |    |
| <b>[X]</b>          | was filed on June  | 29, 2001 as United   | States Application Serial No.: 09/8  | 96,485                |                   |         |                 | OFF            | ICE        | OF PI       | ETITIO | NS |
|                     | and was amended  | on   | (if applicable).   |                       |                   |         |                 |                |            |             |        |    |
| ncludir             |  |  |  | ve-ide                | ntified           | spec    | ificat          | ion,           |            |             |        |    |
| defined             | I acknowledge the in 37 C.F.R. §1.56.  |  | formation which is known by me to  | be mat                | erial to          | pate    | entabi          | ility a        | s          |             |        |    |
| country<br>any fore | ent or inventor's certi<br>other than the Unite<br>eign application for  | ficate or 365(a) of<br>ed States of Americ<br>patent or inventor's | any PCT international application vanished below and have also identificate, or of any PCT internation | vhich del<br>fied bel | esignat<br>ow, by | ted a   | t leas<br>cking | t one<br>the t | oox,       |             |        |    |
|                     |  | <u>Pr</u>  | Not  |                       | Copy Filed?       |         |                 |                |            |             |        |    |
| Numbe               | er)  | (Country)  | (Day/Month/Year filed)   | _ [                   | ]                 | [       | ]               | [              | ]          |             |        |    |
| (Numbe              | er)  | (Country)  | (Day/Month/Year filed)   | _ [                   | ]                 | [       | ]               | [              | ]          |             |        |    |
| (Numb               | er)  | (Country)  | (Day/Month/Year filed)   | [                     | ]                 | [       | ]               | [              | ]          |             |        |    |
| I hereb             | y claim the benefit u  | nder 35 U.S.C. §11   | 19(e) of any United States provision   | al appl               | ication           | ı(s) li | sted l          | belov          | <i>1</i> . |             |        |    |
| (Applio             | cation Number)   |  | (Filing Date)  | <del></del>           |                   |         |                 |                |            | <del></del> |        |    |
| (Applio             | cation Number)   |  | (Filing Date)  |                       |                   |         |                 |                |            | _           |        |    |
|                     |  |  |  |                       |                   |         |                 |                |            |             |        |    |

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information known by me to be material to patentability as defined in 37 C.F.R. 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

| (Application Serial No.) | (Filing date) | (Status: patented, pending, abandoned) |
|--------------------------|---------------|--|
| (Application Serial No.) | (Filing date) | (Status: patented, pending, abandoned) |
| (Application Serial No.) | (Filing date) | (Status: patented, pending, abandoned) |
| (Application Serial No.) | (Filing date) | (Status: patented, pending, abandoned) |

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s):

Richard A. Jordan, Reg. No. 27,807 John M. Gunther, Reg. No. 26,175 Leanne J. Fitzgerald, Reg. No. 40,606 William R. Clark, Reg. No. 29,523 Krishnendu Gupta, Reg. No. 37,977 Penelope S. Wilson, Reg. No. 29,751 Robert Kevin Perkins, Reg. No. 36,634

the last six named of EMC Corporation, Office of the General Counsel, 35 Parkwood Drive, Hopkinton, MA 01749 and Richard A. Jordan, Esq. of P.O. Box 81363, Wellesley Hills, MA 02481

to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Please send correspondence to: Penelope S. Wilson, Esq.

EMC Corporation, Office of the General Counsel, 35 Parkwood Drive, Hopkinton, MA 01749

Direct telephone calls to: Penelope S. Wilson, Esq. Telephone No.: 508-435-1000 Ext. 77998

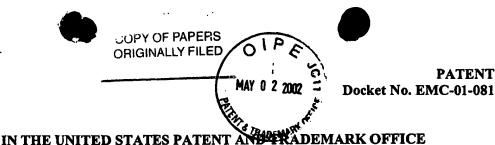
Direct facsimiles to: Penelope S. Wlson, Esq. Facsimile No.: 508-293-77998

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

| Full name of sole or first inventor: | Natan Vishlitzky                        |  |  |  |
|--------------------------------------|---|--|--|--|
| Inventor's Signature:                |   |  |  |  |
| Date:                                | 4/9/02                                  |  |  |  |
| Residence:                           | 87 Clinton Road 2, Brookline, MA 02445  |  |  |  |
| Citizenship:                         | USA and Israeli                         |  |  |  |
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| Full name of second joint inventor, if any: | Haim Kopylovitz                              |  |  |
|---|--|--|--|
| Inventor's Signature:                       | <i>/</i> ", \                                |  |  |
| Date:                                       | 04/09/2002                                   |  |  |
| Residence:                                  | 9 Columbia Street, Brookline, MA 02446, # 23 |  |  |
| Citizenship:                                | USA Israel Newton, MA 02464                  |  |  |
| Mailing Address:                            | 9 Columbia Street, Brookline,MA, 02446       |  |  |

| Full name of third joint inventor, if any: | Eli Shagam  |
|--|---|
| Inventor's Signature:                      | Elm   |
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| Mailing Address:                           | 1265 Beach St., Apt. 606, Brookline, MA, 02446      |



APPLICANT:

Natan Vishlitzky

GROUP ART UNIT:

2185

U.S.S.N.:

09/896,485

EXAMINER:

Unknown

FILING DATE:

June 29, 2001

TITLE:

DIGITAL DATA STORAGE SUBSYSTEM INCLUDING ARRANGEMENT

FOR INCREASING CACHE MEMORY ADDRESSABILITY

**Assistant Commissioner for Patents** Washington, DC 20231

> ASSOCIATE POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS

RECEIVED

MAY 0 3 2002

Sir:

OFFICE OF PETITIONS

Please recognize the following as Associate Attorneys in this application:

William R. Clark, Reg. No. 29,523 Leanne J. Fitzgerald, Reg. No. 40,606 Krishnendu Gupta, Reg. No. 37,977

Penelope S. Wilson, Reg. No. 29,751 Robert Kevin Perkins, Reg. No. 36,634

Dated: April 19, 2002

Richard A. Jordan, Reg. No. 27,807 Principal Attorney of Record

Please direct all future correspondence to:

Penelope S. Wilson, Esq. Office of the General Counsel **EMC Corporation** 35 Parkwood Drive Hopkinton, MA 01748-9103

Telephone: (508) 435-1000, Ext. 77998

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### CERTIFICATE OF MAILING OR TRANSMISSION UNDER 37 CFR 1.8

I certify that this document is being deposited on Abril 22, 2002 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.





|   | RECORDATION FORM COVER SHEET |                            |                        | MENT OF COMMERCE      |  |
|---|------------------------------|----------------------------|------------------------|-----------------------|--|
| (Rev. 03/01)<br>OMB .No. 0651-0027 (exp. 5/31/2002)   | PATEN'                       | rs only                    | 0.0. r ate             | and trademark office  |  |
| Tab settings ⇔ ⇔ ▼  | ▼ ▼                          | <u> </u>                   |                        | <del></del>           |  |
| To the Honorable Commissioner of  | of Patents and Tedemarks:    | Please record the attached | original documents o   | r copy thereof.       |  |
| 1. Name of conveying party(ies):  | 5                            | 2. Name and addre          |                        | • • •                 |  |
| Natan Vishlitzky  | MAY 0 2 2002                 | Name: Penelope             | S. Wilson, Esq.        |                       |  |
| Haim Kopylovitz<br>Eli Shagam   |                              | Internal Address:          | EMC Corporati          | ion                   |  |
|   | CAUE MARINE                  |                            |                        |                       |  |
| Additional name(s) of conveying party(ies)  | attached? 🖵 Yes 🍱 No         |                            |                        |                       |  |
| 3. Nature of conveyance:  |                              |                            |                        |                       |  |
| 🖾 Assignment  | Merger                       | Otro et Addreses           | 25 Parkwood Dr         | riva                  |  |
| ☐ Security Agreement  | ☐ Change of Name             | Street Address:            | 33 Falkwood Di         | 146                   |  |
| Other   |                              |                            |                        |                       |  |
| Carlo |                              | O't Honkinton              | State: M               | A Zip: 01748          |  |
|   |                              | City: Hopkinton            | State: IVIZ            | 1Zip:01746_           |  |
| Execution Date 04/09/2002   |                              | Additional name(s) &       | address(es) attached   | ? 🖵 Yes 🍱 No          |  |
| 4. Application number(s) or patent  | number(s):                   |                            |                        |                       |  |
| If this document is being filed to  | gether with a new app        | lication, the execution    | date of the applic     | cation is:            |  |
| A. Patent Application No.(s)  |                              | B. Patent No.(s)           |                        |                       |  |
| 09/896,485  |                              |                            |                        | _                     |  |
|   | Additional numbers a         | tached? 🖵 Yes 🔼 No         |                        | ·                     |  |
| 5. Name and address of party to w concerning document should be   |                              | 6. Total number of ap      | pplications and p      | atents involved:      |  |
| Name: Penelope S. Wilson, Esq.  |                              | 7. Total fee (37 CFR       | 3.41)\$                | ,40.00                |  |
|   |                              | ☐ Enclosed                 |                        |                       |  |
| Internal Address: EMC Corporati   | ion                          | — Authorized to            | ha ahamad ta d         | ononit noncunt        |  |
|   |                              | Authorized to              | be charged to d        | eposit account        |  |
|   |                              |                            |                        |                       |  |
|   |                              | 8. Deposit account r       | number:                |                       |  |
| Street Address: 35 Parkwood Dri   | <u>ve</u>                    |                            |                        |                       |  |
|   |                              | 05-0889                    |                        |                       |  |
| City: Hopkinton State: MA   | Zip: <u>01748</u>            | (Attach duplicate copy     | of this page if paying | by deposit account)   |  |
| DO NOT USE THIS SPACE   |                              |                            |                        |                       |  |
| 9. Statement and signature.   |                              |                            |                        |                       |  |
| To the best of my knowledge an is a true copy of the original doc   |                              | information is true and    | correct and any        | attached copy         |  |
| Penelope S. Wilson, Reg. 29   |                              | nelones//                  | Velson_                | 1/16/02               |  |
| Name of Person Signing  |                              | Signature                  | القساء                 | <b>∕</b> Dat <b>€</b> |  |
| Total number of pages including cover sheet, attachments, and documents   |                              |                            |                        |                       |  |

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

PATENT/Sole Assignment – Post Filing Attorney Docket No.: EMC-01-081

#### ASSIGNMENT

WHEREAS, I, Natan Vishlitzky, Haim Kopylovitz and Eli Shagam have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled DIGITAL DATA STORAGE SUBYSTEM INCLUDING ARRAGNGEMENT FOR INCREASING CACHE MEMORY ADDRESSABILITY, the specification of which:

| []         | is being executed on even date herewith and is about to be filed in the Unit States Patent Office; | s about to be filed in the United |  |  |
|------------|--|-----------------------------------|--|--|
| [X]        | was filed on June 29, 2001as U.S. Application No. 09/896,485                                       |                                   |  |  |
| <b>r</b> 1 | was patented under U.S. Patent Noon  | _•                                |  |  |

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 35 Parkwood Drive, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made: I hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. I hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, I hereby further agree for me and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue,

divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

forth below:

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my seal as set

Date: 19 9 0 0 2

Inventor's Signature

Print full name of sole inventor:

Residence: 87 Clinton Road #X, Brookline, MA 02445

Citizenship: USA

Mailing Address: 87 Clinton Raod #A, Brookline, MA 02445

STATE/COMMONWEALTH OF COUNTY OF MUSICIPAL TO THE PRINT OF COUNTY OF MUSICIPAL TO THE PRINT OF COUNTY OF MUSICIPAL TO THE PRINT OF MUSICIPAL TO THE PRINT OF THE PRINT

My Commission expires 9/4



-3-

| Date: 4-9-02   | \"\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\  |
|--|---|
|  | Inventor's Signature  |
| Print full name of sole inventor:  | Haim Kopylovitz   |
| Residence:   | 9 Columbia Street, Brookline, MA 02446  |
| Citizenship:   | USA ISRAEL  |
| Mailing Address:   | 9 Columbia Street, Brookline, MA 02445  |
| STATE/COMMONWEALTH OF<br>COUNTY OF   | MENTON, MA 02464 MAGALLELY  |
| Then personally appeared before me he executed the foregoing instrumer 2002. | the above-named Natan Vishfitzky and acknowledged that as his free act and deed this day of |
|  | Print Name: Nancy E, Buck   |
|  | My Commission expires 9/4/2003  |



-4-

| Date: 4-9-02  | L'm   |
|---|---|
|   | Inventor's Signature  |
| Print full name of sole inventor:   | Eli Shagam  |
| Residence:  | 1265 Beach Street, Apt. 606, Brookline, MA  |
|   | 02446   |
| Citizenship:  | USA   |
| Mailing Address:  | 1265 Beach Street, Apt. 606, Brookline, MA  |
|   | 02446   |
| STATE/COMMONWEALTH OF COUNTY OF  Then personally appeared before me he executed the foregoing instrumer 2002. | Massachusetts  Middlesex  ethe above-named Natan Violitaky and acknowledged that as his free act and deed this day of |
|   | Notary Public  Print Variant Alana S. T. 1616   |
|   | Print Name: Nancy E. Buck My Commission expires 9/4/2003  |
|   | 111) Commission orbitos 11, 11, 8000  |